

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

8948P001

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on March 7, 2011Signature /Adriana M. Garcia/Typed or printed name Adriana M. Garcia

Application Number

10/580,776

Filed

May 26, 2006

First Named Inventor

Guo Liang Yang

Art Unit

2169

Examiner

Vo, Cecile H.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor./Tatiana Rossin/☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

Signature

Tatiana Rossin

Typed or printed name

☐ attorney or agent of record.

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☒ attorney or agent acting under 37 CFR 1.34.Registration number if acting under 37 CFR 1.34 56,833

March 7, 2011

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.

Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:  Guo Liang Yang  Application No.: 10/580,776  Filed: May 26, 2006  For: A METHOD AND APPARATUS FOR BUILDING A MULTI-DISCIPLINE AND MULTI-MEDIA PERSONAL MEDICAL IMAGE LIBRARY NETWORK	Examiner: Vo, Cecile H  Art Unit: 2169  Confirmation No.: 7128  <b>CERTIFICATE OF TRANSMISSION</b> I hereby certify that this correspondence is being submitted electronically via EFS Web on the date shown below.  /Adriana M. Garcia/ March 7, 2011 Adriana M. Garcia Date
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P.O. Box 1450  
Alexandria, Virginia 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Sir:

In response to the Final Office Action mailed December 7, 2010, and in conjunction with the Notice of Appeal filed concurrently herewith, applicants respectfully request review of the final rejection of the claims of the above-referenced patent application in view of the following.

**Rejections To Be Reviewed*****Rejections under 35 U.S.C. §103(a)*****Claims 1-37**

Claims 1-37 stand rejected over U.S. Patent No. 7,374,077 to Shimura ("Shimura") in combination with U.S. Patent No. 7,080,098 to Smirniotopoulos et. al. ("Smirniotopoulos") and U.S. Publication No. 2004/0139043 to Lei et al. ("Lei").

#### Claims 24-28

Claims 24-28 stand rejected over Shimura in combination with U.S. Publication No. 2003/0013951 to Stefanescu et al. ("Stefanescu").

#### **Summary of Claimed Subject Matter**

Applicants' invention as claimed in claim 1 defines automatically anonymizing sensitive information by replacing each item of the sensitive identification data with an anonymization code and securely storing a relationship between the anonymization code and the sensitive patient identification data in a table in the database. Support for the claimed invention can be found in Figure 4 of the drawings and in paragraphs 148 to 156 of specification. Patient specific information retrieved from the clinical image archive is very sensitive and can only be referenced internally. It is not allowed to appear in teaching files and datasets, which may be published. Patient sensitive information can't be simply removed from the teaching files. Sometimes it is required to be able refer back to the actual patient. Therefore, patient sensitive information needs to be anonymized (see paragraph 142 of the specification). Applicants' invention as claimed in claim 1 provides a simplified access control scheme for the largest portion of the database, which saves computational resources. Additionally, securely storing the relationship between the anonymization code and the sensitive patient identification data in a table in the database centralizes the sensitive information in a small core table that can be easily secured (see applicants' Amendment as filed 9/23/10, last paragraph on page 11 to first paragraph on page 12).

#### **Summary of Prosecution History**

During the interview of 8/25/10 applicants' proposed amendment to claim 1 was discussed in view of the 103 rejection in Office Action mailed 06/23/10. In the applicants' Amendment filed on 9/23/10 claim 1 was amended in light of this interview. This Amendment, in part, pointed out that Lei fails to disclose securely storing a relationship between the anonymization code and the sensitive patient identification data in a table in the database, as recited in amended claim 1 (see Amendment as filed on 9/23/10, page 14, first paragraph). The Examiner acknowledged that Shimura and Smirniotopoulos do not disclose that the automatic anonymizing of patient identification data includes replacing each item of the patient

identification data with an anonymization code and securely storing a relationship between the anonymization code and the patient identification data in a table in the database (page 5, Final Office Action mailed 12/07/10). The Examiner alleges that Lei discloses “replacing each item of the identification data with an anonymization code,” and the Examiner refers to the replacing of the data from the attribute with the masking value of integer zero in paragraphs [0074]-[0075] of Lei as corresponding to this feature (page 17, Final Office Action mailed 12/07/10). In addition, the Examiner interpreted the applicants’ claimed securely storing a relationship between the anonymization code and the sensitive patient identification data in a table in the database as corresponding to storing the modified data in masked result set described in paragraph [0074], line 10 in Lei (page 17, Final Office Action mailed 12/07/10).

### **Argument**

The rejections of claims 1-37 rely on Lei as allegedly disclosing the recited in claim 1 limitations of “storing a relationship between the anonymization code and the patient identification data in a table.” Lei discloses that when a user inputs a query which references “NAME” and “SALARY”, a database server obtains data for the requested names (non-sensitive information) and salaries (sensitive information) and stores this query result (paragraphs [0031], [0064], [0074]). In particular, Lei discloses that the query result can be masked by replacing the salary data with the masking value, integer zero, and the modified data is stored in a masked query result set (Table 1, paragraph [0074] of Lei). According to Lei, regardless of the amount of salary, the masking value is an integer zero as shown in Table 2 of Lei. In other words, Lei does not even disclose defining a relationship between the masking value (anonymization code) and the salary (sensitive information), let alone providing any motivation to securely storing such a relationship in a table in the database.

In contrast, storing of a relationship between the anonymization code and the patient identification data in a table as recited in claim 1 of the present application would enable the retrieval of the patient identification data using the corresponding anonymization code in a secure way. However, Lei does not disclose or suggest storing such a relationship for possible retrieval of sensitive data later on. In fact, Lei discloses the result set 235 with both non-sensitive information (name) and sensitive information (salary), and the masked result set 233 with sensitive information (salary) anonymized stored in the database server 230. Because all the information are stored in the result set 235 and the masked result set 233 in the database server

230, there is no motivation to store an additional correspondence relationship between the masked value and the sensitive data. Therefore, Lei would not provide any motivation to securely store a correspondence relationship between the anonymization code and the sensitive data in a table.

In another aspect, according to the subject matter of pending claim 1, the relationship between the anonymization code and the patient identification data is stored in a table in the database, which is the same database as the one which stores the plurality of medical images. In Lei, the entire data containing sensitive information (which is not anonymized) is stored in the main database 240 (table 2), which has to be fully protected against unauthorized access attempts.

In contrast thereto, storing the relationship between the anonymization code and the patient identification data in a separate table in accordance with pending claim 1 allows securing only a small portion of the database instead of protecting the whole database as required in Lin. According to claimed invention, the main portion of the database which has the medical images stored thereon does not need to be protected because the patient identification information is anonymized in the main database.

For the above reasons, Lei does not disclose or suggest “securely storing a relationship between the anonymization code and the patient identification data in a table in the database”, as recited in claim 1.

The references Shimura and Smirniotopoulos do not disclose that the automatic anonymizing of patient identification data includes replacing each item of the patient identification data with an anonymization code and securely storing a relationship between the anonymization code and the patient identification data in a table in the database, as acknowledged by the Examiner.

Lei discloses attribute relevant access control policies. Shimura, in contrast, discloses similar image search system. Smirniotopoulos, in contrast, discloses medical multimedia database system. There is no motivation to combine these references as they are concerned with different problems. Furthermore, even if Shimura, Smirniotopoulos and Lei were combined, they would not make up for the deficiencies of Lei. Therefore, claim 1 is not obvious over Shimura, in view of Smirniotopoulos and Lei.

Given that claims 2-37 contain at least “securely storing a relationship between the anonymization code and the sensitive patient identification data in a table in the database,” claims 2-37 are not obvious over Shimura, in view of Smirmiotopoulos and Lei.

Stefanescu does not teach or suggest “securely storing a relationship between the anonymization code and the patient identification data in a table in the database,” either.

Given that claims 24-28 depend from claim 21, and add additional limitations, claims 24-48 are not obvious over Shimura in view of Smirmiotopoulos, Lei and Stefanescu.

### **Conclusion**

As set forth above, there are omissions by the Examiner of one or more essential elements needed to lay out a valid, *prima facie* case of obviousness. This has not been done in the current case, because even if the cited references were combined, such a combination would not meet all of the limitations of claims 1-37. When considering whether a claim is obvious, all of the limitations of the claim must be considered (see MPEP 2143.03). Because the suggested combination does not meet the limitations of the claims, no *prima facie* case of obviousness has been made, and the rejections of the claims under 35 U.S.C. §103(a) should be withdrawn. Applicant respectfully requests the Pre-Appeal Conference direct the Examiner to enter an allowance for claims 1-4, 6, and 8-37.

### **Deposit Account Authorization**

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicants hereby request such extension.

Respectfully submitted,  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: March 7, 2011

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